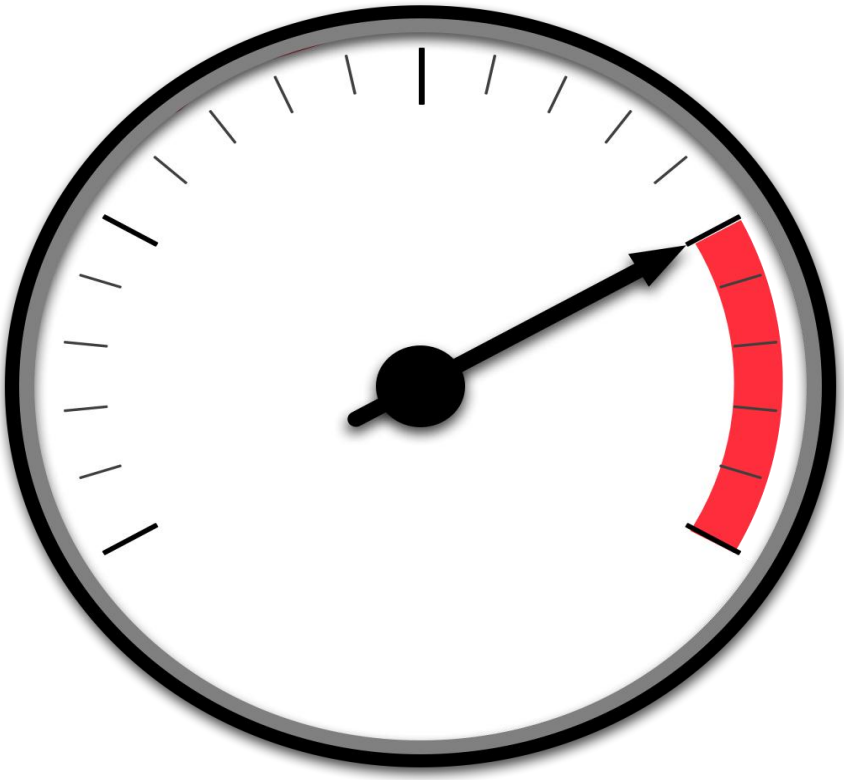
The drive for quality

How to achieve safe, sustainable care in our Emergency Departments?

System benchmarks & recommendations
The College of Emergency Medicine



Summary Report

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On behalf of the QED Group

Foreword

Consistent delivery of high quality emergency care remains an elusive goal for Emergency Departments (EDs) in the UK at present. This publication, the first of its kind by the College, describes the key components needed by systems as they move towards this important goal.

Much has been written about how to measure and then improve the quality of care delivered by healthcare systems. In emergency care the challenge is especially great. System benchmarking is a well described tool in the wider healthcare industry. It is used to improve consistency and drive quality improvement. The Quality in Emergency care Dashboard (QED) project surveyed 131 EDs in the UK for the financial year 2011/12. It is the largest and most comprehensive study of its kind, certainly in the UK. EDs are struggling to ensure consistent, safe care as performance deteriorates across the wider healthcare system. Workloads are increasing and there is a worsening medical workforce crisis in our EDs. The results from the QED are therefore timely.

More importantly, this report makes 10 key recommendations that we believe should be a strong focus for active discussions between commissioners, clinicians and Trust Boards as they seek to prioritise, design and deliver safe emergency care. The recommendations have some ranking and suggested timelines to help act as a focus for change, but in essence we believe they must be taken together. If properly implemented we believe they will lead to stability and consistency for the care delivered in our EDs. We will repeat this exercise in 2014 to assess and help guide relevant stakeholders on their progress. Failure to improve could have grave consequences for our patients, our staff and our ability to attract the high quality trainees of the future that are vital to drive the quality care agenda.

The College will also use this report and its recommendations to help inform the Review of Urgent and Emergency Care led by Sir Bruce Keogh, discussions with NHS England on guidance for Clinical Commissioning Groups and also to the Health Select Committee which has recently announced a review into Emergency Services and Emergency Care in May 2013.

Our commitment to highlight these issues on behalf of our Fellows and their staff is strong. More importantly, especially in the post Francis era, our commitment to our patients seeking our help in an emergency will remain unswerving.

Mike Clancy, President

Summary

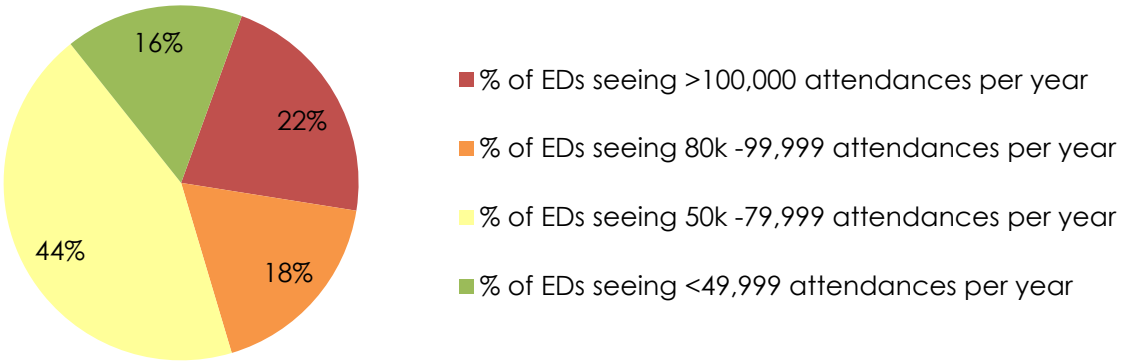
Introduction

Within the wider system, better understanding and benchmarking of what is required to commission, run and maintain the quality of care in a high performing Emergency Department (ED) is a crucial issue for the NHS[1]. This was well described in the Institute of Medicine's landmark publication: *Crossing the Quality Chasm* in 2001 and has now been translated into a framework for quality and safety for the ED by the International Federation for Emergency Medicine [2, 3]. In addition, process driven benchmarking has been identified as being a powerful tool for quality improvement[4]. The ability of EDs to provide a high quality patient experience supported by the three strands of safety, effective clinical care and consistent system performance, lies at the heart of these efforts to improve emergency care. Measurement of better outcomes for specific clinical conditions is also vital, especially for certain time critical pathologies. This is the subject of separate work by both the College and other relevant bodies[5, 6, 7].

The College of Emergency Medicine is pleased to publish its first comprehensive report on the key components of services that are being provided in the UK at present[8]. The information is derived from a detailed web-based survey completed by individual EDs in the UK. A total of 131 EDs across the UK submitted data to the QED project. This represents just over half of all EDs in the UK and nearly 60% of EDs in England – a representative dataset.

We hope that the report and its recommendations can be used by commissioners, clinicians and managers to help benchmark their systems against the best available evidence or standards set by national organisations. We have also suggested some timelines that we hope will help stakeholders focus their activities. This will identify some 'quick wins' as well as allow better linkage to national bodies (NHS England or equivalent) where central strategic support is required. We believe that timely action is essential. More importantly we want to build upon this first report by the College to refine our thinking for the future. In 2014 we will revisit the identified benchmarks and repeat the exercise, so that stakeholders in the process can measure the level of success they have achieved. Calibration of system design will be vital if we are to configure sustainable, cost effective, solutions that will drive consistent, quality improvement in the care we deliver to our patients.

Workload and demographics – The workload of the modern day ED is high with 22% of departments in the UK now seeing in excess of 100,000 patients /year. Overall, 10% of cases are triaged as category 1 or 2 and 38% of adults are category 3. Attendance rates continue to rise particularly in England. Other work suggests that this is 3-5% year on year although some systems report much higher increases especially out of hours[9]. Despite many initiatives to reduce demand over the last 10 years, none seem to have successfully created sustained change and diversion of work away from EDs.



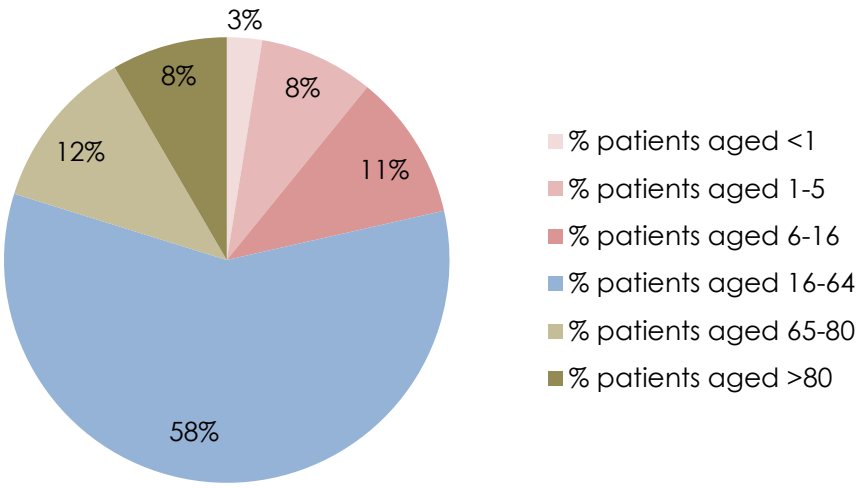
Older patients and paediatric patients form a significant proportion of the workload of the ED (20% of patients are over 65 years old and 22% of patients are under 16). Notably, 8% of patients are over the age of 80 and this number will certainly rise unless sustainable, appropriate, alternative solutions are found. A range of specific design strategies are required to manage the rising number of elderly patients who attend the ED but do not require emergency care. The role that Urgent Care Centres (UCCs) and co-located primary care services have had on ED function and activity is important and will be the subject of a more detailed report by the College later in 2013. Evidence suggests that the primary care workload is rising and that co-located primary care services could manage between 15-30% of existing ED workloads[9, 10]. In some systems it has been suggested that this could be greater, although the nature of the solution in such circumstances remains poorly defined. The best systems have optimal integration strategies between the ED and any co-located primary care service with an EM consultant as a single Director of Emergency Care. Failure to have an integrated approach recurrently leads to fragmentation of services, fragility of team working, higher levels of risk and poorer outcomes.

It is vital that commissioners and clinicians understand the workload and case mix of patients presenting to their emergency care systems. They then need to develop systems to cope with this activity. Depending upon local casemix, resourced and accessible primary care services are vital. These may be housed in UCCs. Alternatively, co-located primary care services within, or adjacent to EDs, will help to decongest departments. They will focus on certain lower priority groups of

patients, and allow optimal delivery of emergency care across the board. Whilst efforts to reduce demand will continue, this should not detract from the need to appropriately resource EDs to meet the more complex workload they are facing. Managing very busy periods of activity and surge in the ED require resilient escalation planning by the entire local healthcare system. The College has provided guidance on managing overcrowding in the ED [11].

Poorly performing care systems have flows that lead to exit block and overcrowding. These failures by systems and organisations have now been clearly proven to lead to increased mortality and morbidity for patients[12, 13, 14, 15]. Executive teams of provider organisations and commissioners have responsibilities not only to their patients but also their staff to help them work safely and sustainably when performing clinical duties in the ED at times where the wider system is performing poorly.

Age breakdown of total ED attendances (UK)



Recommendation 1: Commissioners and clinicians must work closely together as a matter of priority to better manage workload in their Emergency Departments. Clear targeted funding strategies and appropriate co-located primary care services are needed to cater for 15-30% of the present work in Emergency Departments. These will work best if Emergency Medicine Consultants as Directors of Emergency Care are given responsibility to lead on integrated care delivery, governance and training. Trust Executives must also ensure flow through the emergency care system.

TIMELINE: 1-6 months

Configuration of services - The results of the QED show that optimal configuration of services required to support a modern ED or Major Trauma Centre continues to be a challenge for commissioners, provider organisations and clinicians alike. The College has previously provided guidance on the key principles that support good reconfiguration [16]. Solutions that will ensure

safety, efficiency and clinical effectiveness must lie at the heart of all re-design. The QED data suggests that there is significant variation in how services are configured, and how some EDs are supported on site. More work is required to understand how networked solutions and integrated pathways can best support delivery of high quality care.

The design, function and role that UCCs can provide in supporting EDs continues to be a poorly researched area due often to operational imperative. The QED report reveals significant variation in UCC design and system integration. The College has also previously published guidance on unscheduled care facilities and provided a toolkit for systems wishing to develop such models [17, 18]. More recently a review by the Primary Care Foundation of a cohort of UCCs revealed a continuing variation in standards of practice and concerns about value for money [19]. The College will seek to do further collaborative work with NHS England, the Royal College of General Practitioners, and the Primary Care Foundation in this important area in order to provide recommendations on the best models of cost effective and efficient care delivery.

Recommendation 2: The College recommends adherence to key principles of good reconfiguration. Urgent Care Centre development must be part of a wider networked solution that is cost effective and efficient especially if co-located next to Emergency Departments.

TIMELINE: 3-12 months

Medical staffing in the ED - The number of Emergency Medicine (EM) Consultants in post has risen over the last five years. The average number of whole time equivalent (WTE) Consultants per ED is now 7.4, compared to 3.8 in 2007/8. Whilst this expansion is welcomed, the average number is still significantly below the College's minimum recommendation of 10 WTE Consultants per ED and up to 16 Consultants in larger departments. The College's recommended levels are designed to provide sustainable cover, with up to 16 hours EM Consultant presence per day, 7 days a week, in every department [20]. Increased EM Consultant numbers will also ensure adequate 'depth of cover' to help manage EDs during busier times and surges. Finally they will ensure better supervision of juniors and protected training time.

Consultants in EM are providing significant direct 'shop-floor' cover to help maintain safety in EDs, especially out of hours, within limited available resources. Over 77% of EDs reported that they had at least one EM Consultant present in the ED over 12 hours per weekday, but only 17% reported such presence for 16 hours. At weekends the number of departments with 'shop-floor' cover for at least 12 hours / day, falls to 30%. The College believes that EM Consultants are at the leading edge of 7 days working as espoused by the Medical Director, Sir Bruce Keogh as well as the Academy of Medical Royal Colleges within the constraints of the resources available [21,22]. It

should be noted that the intensity of working is not reflected in these numbers. Other work by the College is seeking to understand and give guidance on safe and sustainable working practices by Consultants.

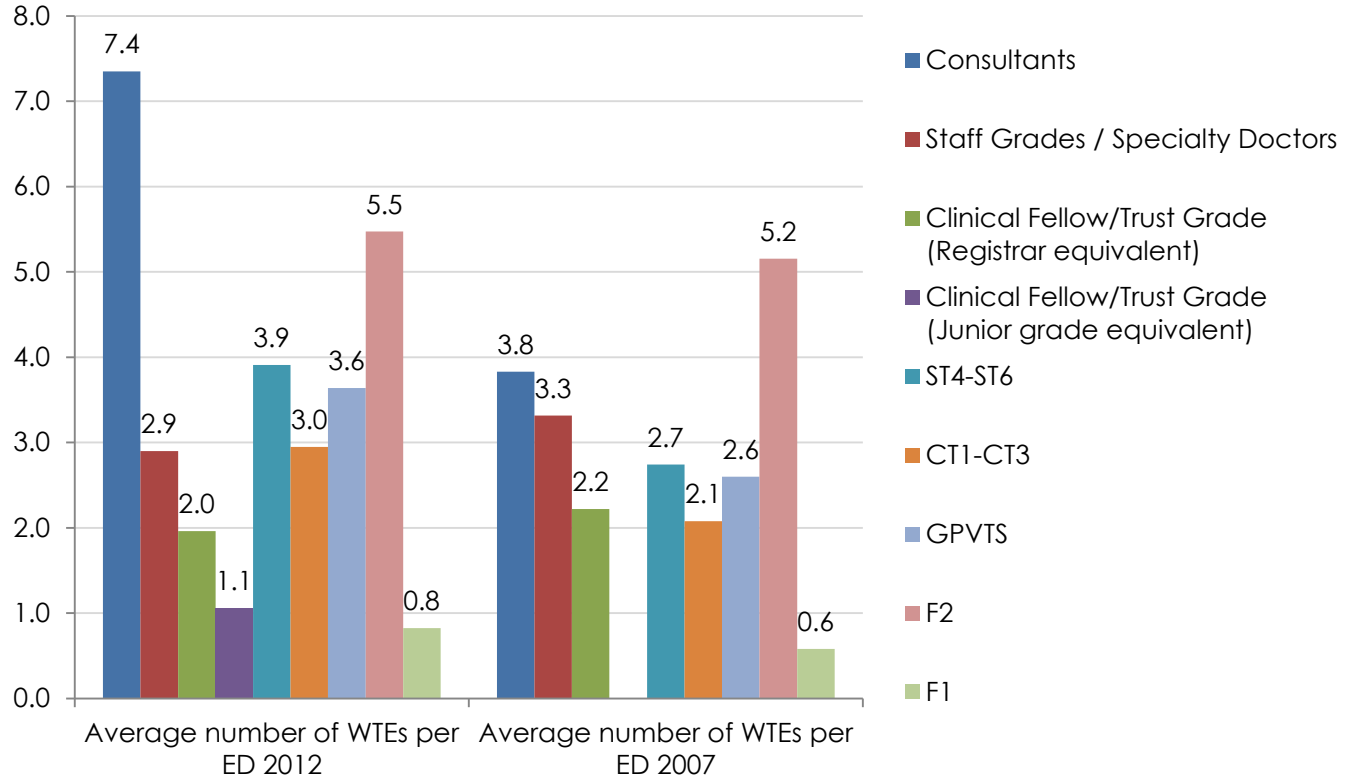
The QED has identified that 60% of EDs adhere to national College, Academy of Medical Royal Colleges and BMA guidelines on job planning: specifically the inclusion of 2.5 PAs of Supporting Professional Activity within job plans. This time is vital if EM Consultants are to lead, project manage, and deliver a host of training, quality improvement and governance activities. The College will carry out further work to explore the impact on systems where there is such variation in national recommendations.

The average number of Higher Specialist Trainees (HST4-6) posts available has risen slightly in the same 5 year time period (2007-12) but the steep fall off in recruitment into ST4-6 posts has created significant vacancy or locum rates of 29% for HST. Vacancy rates for SAS doctors have similarly deteriorated. These issues are proven to have resulted in significant clinical and financial risk for the NHS [23]. Urgent work is required to improve working and training conditions for these groups. Trends in recruitment to HST posts over the last 3 years suggests shortages in ST4-6 posts will continue for the foreseeable future if no action is taken to create sustainable working patterns that are attractive to the trainees of the future.

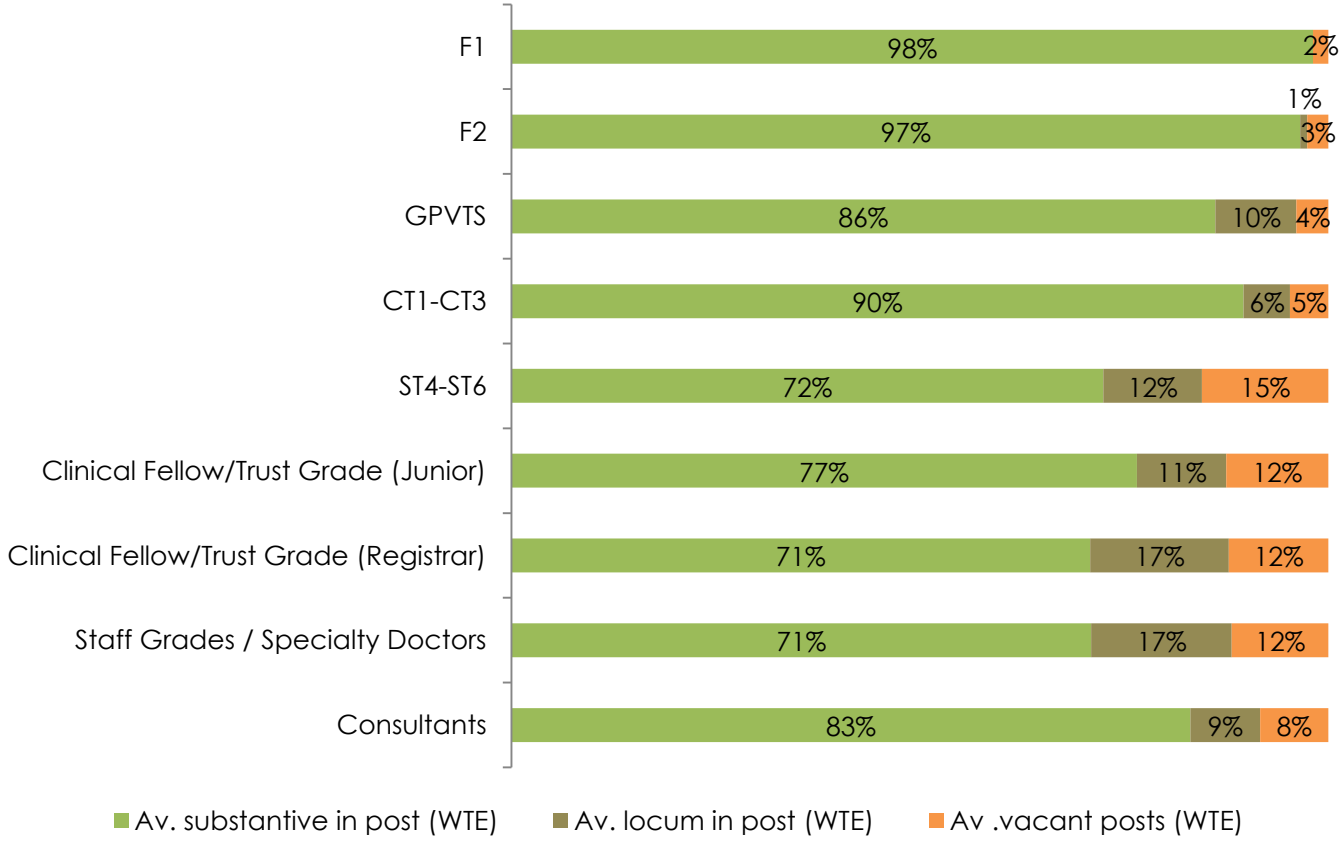
Junior grade vacancy rates are relatively low. This reflects the fact that most junior doctors are placed in EDs as part of training rotations. However, the attrition rate between core training and higher specialist training suggests that an unreasonable burden of service delivery is placed on junior staff, negatively influencing choice of specialty.

The very serious medical workforce challenges facing EDs will only be properly addressed by creating safe and sustainable working patterns that meet appropriate standards, thus allowing good training environments and attracting trainees of the future. The College has published standards on minimum Consultant staffing levels for different sized EDs. Most hospitals continue to fall short of these standards. Provider Trusts must create and show commitment to their long term vision for staffing EDs. They must support working practices for Consultants that ensure sustainability. The College will publish further guidance on safe, sustainable working practices in the spring of 2013.

Average WTE medical staff numbers (filled posts) by grade per ED - comparison 2011/12 and 2007/8



Average breakdown of substantive, locum and vacant posts 2011/12 (UK)



Recommendation 3: Trust Boards must urgently focus on, and commit to, the creation of consistent, safe and sustainable working patterns for Consultants in Emergency Medicine. Continued expansion of consultant numbers is vital. These should meet College standards. Good job planning will allow Consultants to deliver good clinical care and training consistently and also support important quality improvement activity within their Emergency Departments.

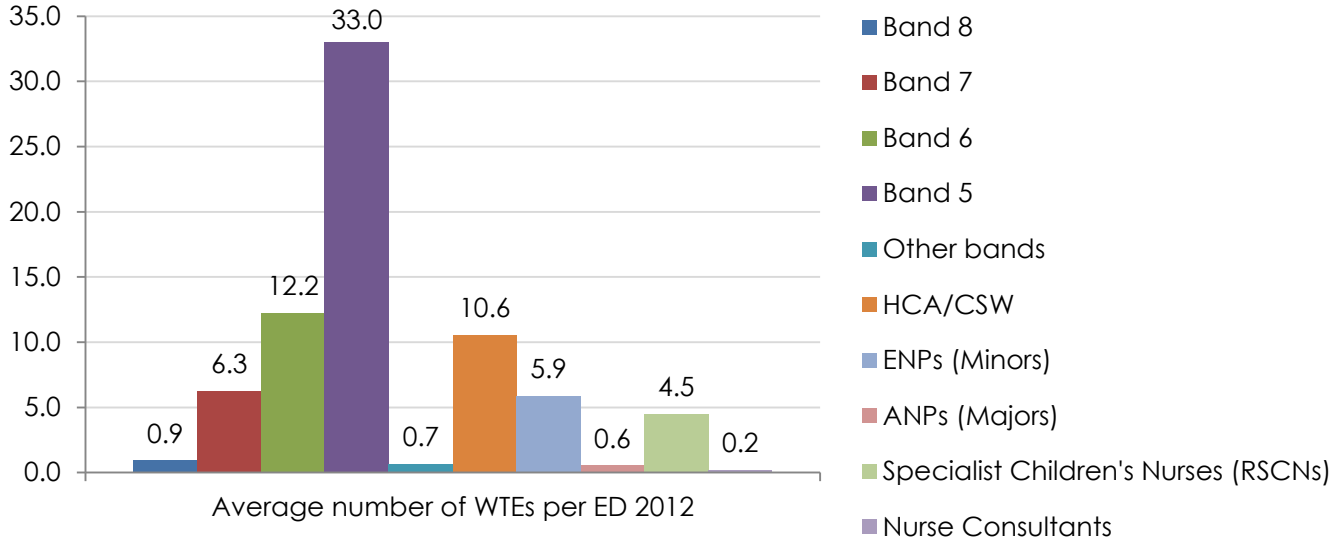
TIMELINE: 1-12 months

Nurse staffing and skillmix - The QED has provided the first comprehensive view on the levels of nursing staff working in EDs in the UK. Whilst no trend data is available, the average nursing staff numbers reveal that EDs rely heavily on Band 5 nurses, supported by Band 6 and 7s to provide 'shop-floor' leadership. The Royal College of Nursing is currently leading work to develop appropriate skillmix tools. This will support the recommendations for core ED nursing staff levels.

The role of Emergency Nurse Practitioners in seeing minor injury patients is well established. This is demonstrated by this survey. A small but slowly increasing number of EDs have Advanced Nurse (or Clinical) Practitioners (ANP or ACPs) that are able to work as part of the ED team in the majors area. It is still too early to assess the potential impact of these posts for most departments, although anecdotal evidence suggests that the greatest benefit occurs when working as a fully integrated part of the ED team. The role of Physician Assistants in some EDs is also being explored and encouraged.

Delivery of high quality care in the ED requires a strong multidisciplinary workforce with the correct skillmix. The College will continue to work closely with the Royal College of Nursing and sub specialty associations to ensure that recommended levels of nurse staffing for core ED function are attained. Provider organisations must review their nurse staffing levels to ensure standards are met and maintained. The delivery of high quality nursing is essential for effective emergency care. This requires strong nursing leadership on a shift by shift basis, as well as at Departmental level.

Average nursing staff numbers (filled posts) per ED 2011/12 (UK)



Recommendation 4: Commissioners and provider organisations should adhere to the guidance of the Royal College of Nursing with regard to nursing workforce and skillmix to maintain high quality care.

TIMELINE: 1-6 months

Clinical quality indicators of care - In 2010 new Clinical Quality Indicators (CQIs) for Urgent and Emergency care were introduced into England with the intention of driving better patient care in EDs. These related to timeliness of care, quality of care, and the patient experience. In Northern Ireland, Scotland and Wales variants of these indicators (with the main focus on the 4 hour indicator) have also been introduced. In the Republic of Ireland similar discussions have taken place.

Measuring and improving the quality of care delivered in the ED must be evidence based. The CQIs developed by the Department of Health, in conjunction with expert groups including the College of Emergency Medicine represent a suite of indicators which if applied appropriately will act as a powerful lever for improving care in the ED. The data reveals that the total time spent in the ED remains the most commonly used indicator of performance for commissioned services (87% of EDs in England). In this survey less than half of EDs reported that patient experience was being used as an indicator of care (43%) and only a third of EDs were using the Consultant sign off indicator (34%). On average only 52% of patients were treated by a doctor or practitioner within 60 minutes of arrival.

Further work is clearly required to use the existing indicators more consistently, as part of a suite focusing on quality improvement rather than an isolated system performance indicator (greater than 95% of patients spending less than 4 hours in the ED)[24]. Urgent work is required to further refine the CQIs to meet challenges in system design. Measurement and consistent improvement of a suite of indicators will require extra resources in a number of systems.

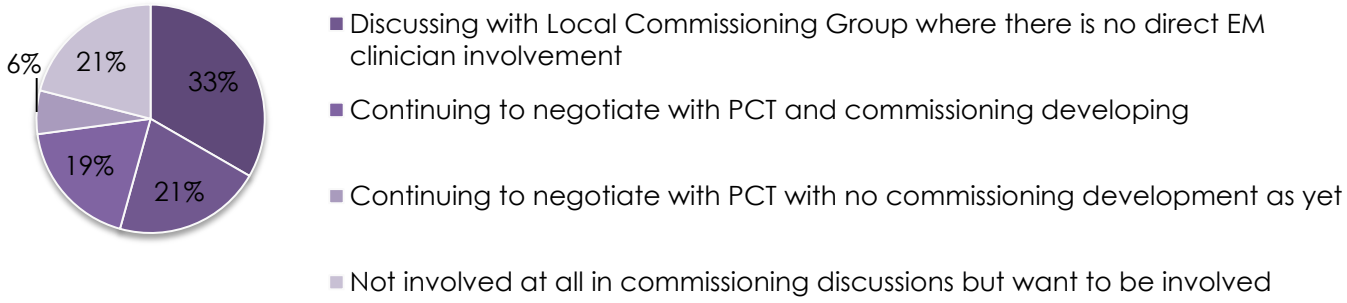
Recommendation 5: The College recommends that the Clinical Quality Indicators be applied together, as a suite, to produce a more holistic quality improvement programme.

TIMELINE: 3-12 months

Commissioning - The new commissioning framework for England was specifically surveyed. Respondents were asked to describe the ways in which commissioners and providers of emergency healthcare systems were working together to produce a joint vision to create cost effective and efficient solutions. There are useful lessons for the other devolved countries in this regard. Commissioning arrangements have progressed significantly since the QED project was undertaken. However, the findings from 2012 reveal that despite an urgent need and seeming desire by all sides, there were significant areas where the commissioning process for emergency care remained embryonic, with a lack of communication.

Respondents reported a lack of active engagement between commissioners and EM clinicians about new commissioning arrangements. 25% of EDs stated no discussion had taken place at all, whilst another 42% stated that only initial discussions had begun. Only 33% of EDs reported that EM clinicians were directly involved in discussions with their local Clinical Commissioning Groups.

The emergency care landscape for commissioners, clinicians and executive teams of provider Trusts, continues to face major challenges. Close collaborative working will produce the most cost effective and efficient solutions. This evidence suggests that there is still much to do.



Recommendation 6: Commissioners, clinicians and senior managers within provider organisations should make concerted efforts to create strong network solutions. These should lead to a shared vision for their emergency systems that can be delivered in a timely fashion.

TIMELINE: 1-3 months

Safety and governance – System design that has safety and high quality integrated clinical governance is vital to all healthcare systems. Such systems are vital to allow recognition of safety issues and for calibration to occur. A general overview of governance systems in EDs was sought by the QED. Overall, 88% of departments reported having a safety lead in EM and 94% reported having a Clinical Risk Register. A total of 88% of departments reported having regular clinical governance meetings with ED staff. The actual quality of the clinical governance meetings, active linkage to their risk registers, the outputs from meetings, and the impact that they had on successful quality improvement and patient experience, was not measured. We hope this will be a major focus of future activity. The amount of time set aside within job plans for robust clinical governance and quality improvement activity was also not directly measured, though as described above only 60% of EDs met national standards in allowing adequate job planning for general 'Supporting Professional Activities'.

Only 43% of departments reported using even low fidelity simulation in the Resuscitation Room as a component of teaching, to enhance team working. The smallest sized EDs had higher than average levels of critical incidents reported. Crucially, 6% of EDs reported that a 'never event' occurred within their ED in 2011/12. This is a vital area of work and the College will continue to provide tools by which these issues can be explored and addressed in greater detail.

High quality clinical governance systems, which lead to successful change and continuous quality improvement, require dedicated resources. This will ensure that the many facets of system design,

human factors engineering, and safety can be focused upon. The College has provided clear guidance on the requirements within job planning to allow these types of activities to be performed. The College recommends 2.5 programmed activities (PAs) within a standard job plan. We will be publishing further guidance in 2013 on aspects of system design linked to active clinical governance that can help monitor and improve activity in this area.

Recommendation 7: Provider organisations should ensure that they have robust and active clinical governance systems to support safety and continuous quality improvement. Consultants must be provided with appropriate time and resources to support quality improvement.

TIMELINE: 1-6 months

Observation medicine and ambulatory emergency care – EDs with dedicated short stay observation ward areas / Clinical Decision Units (CDUs) have been proven to optimise gate keeping into the hospital bed base, provide added opportunity for safer discharge from the ED and also act as an area for ambulatory emergency care to be focused [25, 26, 27].

46% of EDs reported that they have dedicated CDUs / observation wards where patients with a range of conditions can be safely discharged following a short, intense period of investigation or a brief period of treatment and observation. Some units are more highly developed than others and a variety of different 'virtual' models also exist. The ability of the ED to provide an area with a robust gate-keeping function as well as ensuring safe discharge after a short period of observation or therapy, will become increasingly important. This is especially true where bed bases are reduced and service reconfiguration occurs.

Notably, a significant proportion of ambulatory emergency care activity is led by EM physicians in EDs. This allows the gatekeeping function to be maximised and also produce safer discharge from the ED. The College was a leader in the development of the tariff designed to encourage ambulatory emergency care (Same Day Emergency Care – SDEC tariff)[28]. We believe that with further work this tariff could be extended to certain groups of patients in the ED, and if appropriately resourced will drive provision of even more cost effective 'one stop' solutions. This will reduce diversion of patients into the main hospital bed base, which attracts greater lengths of inappropriate stay and tariff costs.

Ambulatory emergency care and observation medicine / CDUs are proven to be cost effective

and efficient strategies for certain groups of patients attending the ED. They lead to safer care. Appropriate resources are required to deliver this function.

Recommendation 8: Clinical Decision Units and ambulatory emergency care are an important component of Emergency Department function. The SDEC tariff for ambulatory emergency care should be applied to certain groups of patients in the Emergency Department to leverage change and optimise good gatekeeping of the hospital bedbase. This activity needs to be properly resourced.

TIMELINE: 3-12 months

Tariffs and Informatics systems – At the heart of an ED's ability to gauge its quality of care delivery lies its ability to measure how well it is performing. The increasing complexity of modern healthcare also relies upon connectivity to a range of other systems to enhance efficiency and effectiveness.

81% of EDs reported that their information system was either poorly integrated with or isolated from hospital and/or primary care systems. A range of difficulties were identified. Information systems that are not fit for purpose, have a lack of universal coding and are linked to inappropriate tariff arrangements have the combined potential for their EDs to be poorly reimbursed for their activity leading to wider instability in healthcare provision as has been shown elsewhere [28].

Urgent work is required to improve the informatics systems in EDs in the UK to meet international standards. These systems will be vital towards providing the infrastructure to track patients, measure trends in quality improvement, and ensuring safe cost effective care.

Recommendation 9: The College recommends that the Department of Health should urgently address and correct the tariff structures that recognise clinical activity in the Emergency Department. At present these are not fit for purpose. Trusts must also pay urgent attention to the utility and integration of their Emergency Department information systems.

TIMELINE: 3-12 months

The patient experience – This appears amongst the many recommendations of the Francis Report and is in many ways the most important of all indicators of quality [29, 30, 31]. However, the measurement tools for tracking progress continue to be poorly developed and evolve all too slowly, especially for adults. In children better progress is being made with joint work between the CEM, the RCPCH and the Picker Institute [31].

For the QED project, a range of narrative responses were received describing how hospitals are attempting to address this difficult area. This confirms the lack of standardisation. The measurement and calibration of patient experience is a vital marker of quality in EDs in the UK. Resources are required to create robust tools that will meet the needs of all patients – young, old, ill and injured, to record their patient experience and feedback ways that support systems to improve. It is not clear whether the recently introduced friends and family test will prove a robust discriminatory tool at this stage.

Recommendation 10: The College recommends that more resources are provided to create tools that will more accurately measure patient experience in the Emergency Department as a vital marker of the quality of care delivered.
TIMELINE: 1-12 months

Conclusions & future work

This report has made a number of important recommendations that require urgent action. We hope that relevant national policy makers, commissioning groups and provider organisations will now take the next steps based on these recommendations. The suggested timelines are provided to act as a guide to encourage focused activity. The College and the wider Emergency Medicine workforce will work closely with all stakeholders as required. We hope that through this approach we can effect positive change for the benefit of our patients who seek our help in an emergency.

We encourage colleagues to share these findings widely and also visit the College's ENLIGHTENme platform *Systems Design* section to share good practices at

www.enlightenme.org/em-system-design

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